

APR 17 2002

K 021077

## Section XIV      510(k) Summary

February 28, 2002

### A. Submitter's Name / Address

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Draper, UT 84020  
(801) 576-9669  
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### B. Contact Person

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### C. Device Name

Common Name:      Electrode, Electrosurgical, Patient Return  
Trade Name:      Mega 2000 Soft Patient Return Electrode Pad  
Classification (if known):      21 CFR 878.4400, Electrosurgical cutting and  
coagulation device and accessories

### D. Predicate Devices

Mega2000® Reusable Patient Return Electrode manufactured by Megadyne  
(K982826) and the Action® Operating Table Pad (K801694).

#### ***E. Applicant Device Description***

The Mega 2000 Soft Patient Return Electrode Pad is constructed of a layer of conductive material strain-relieved with two sheets of urethane material, and sealed between two asymmetric layers of a viscoelastic polymer called Akton®. (The top layer of polymer is thinner than the bottom layer.) The Akton polymer is encapsulated by a layer of urethane film. A two conductor cable connects the conductive layer of the device to a two conductor DetachaCable™. The DetachaCable is connected to a standard monopolar electrosurgical unit (ESU). The device cable is insulated and strain-relieved well inside the device to prevent patient or user burns.

The device is large enough to extend at least the length and width of a typical patient torso. Pad size is approximately 20" x 46" x 1/2".

In use, this device will lay on an operating room table with the patient lying on top, on the side labeled "patient side".

#### ***F. Applicant Device Intended Use***

The Mega 2000 Soft Patient Return Electrode Pad is to be used as a general purpose return electrode and/or a pressure reduction pad in any surgical application. Electrosurgical use is restricted to use with isolated monopolar electrosurgical generators.

#### ***G. Technological Characteristics***

The technological characteristics of the proposed device are identical to the predicate devices.

#### ***H. Safety information***

The only current flow from the patient to the Mega2000 Soft Patient Return Electrode Pad is via capacitive coupling. This device is designed to be current limiting (<100 mA/cm<sup>2</sup>) so as to prevent the patient from getting return electrode site burns. This current limiting attribute is achieved by selecting materials with high impedance per area.

The large contact area between the electrode and the patient lowers the total impedance when there is substantial patient / pad contact area, and allows for enough current flow for electrosurgery to be performed at the surgical site.

The use of Akton as a dielectric layer and a cushioning agent provides load deflection to equalize and distribute pressure. The softness of the material also reduces shear and friction, some of the chief causes of pressure sores. The

desirable attribute of this polymer is that it compresses but does not laterally move under pressure, thus maintaining dielectric protection.

This device conforms to the applicable sections of AAMI HF-18/2001.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

APR 17 2002

Megadyne Medical Products, Inc.  
c/o Mr. Robert Mosenkis  
President  
Citech  
5200 Butler Pike  
Plymouth Meeting, PA 19462-1298

Re: K021077

Trade/Device Name: Mega 2000 Soft Patient Return Electrode Pad

Regulation Number: 878.4400

Regulation Name: Electrosurgical cutting and coagulation device and accessories

Regulatory Class: II

Product Code: GEI

Dated: April 1, 2002

Received: April 3, 2002

Dear Mr. Mosenkis:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

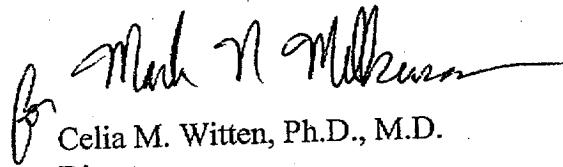
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Mr. Robert Mosenkis

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address  
<http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

  
for

Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Section IV Indications for Use Statement

510(k) Number (if known): K 021077

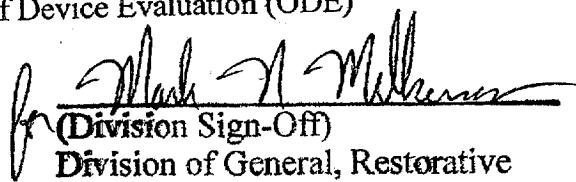
Device Name: Mega 2000® Soft Patient Return Electrode Pad

### Indications for use:

The Mega 2000 Soft Patient Return Electrode Pad is to be used as a general purpose return electrode and/or a pressure reduction pad in any surgical application. Electrosurgical use is restricted to use with isolated monopolar electrosurgical generators.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number K021077

Prescription Use   
(Per 21 CFR 801.109)

OR

Over-The-Counter Use